

Mid-2011 Small Area Population Estimates Scotland

Population estimates by sex, age and data zone

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Contents

1.	Introduction and Background	5
2.	Data Zone Population Estimates, 2011	7
3.	Data Zone Population Change, 2001-2011	11
4.	Other Small Area Population Estimates	16
5.	Notes and Definitions	24
6.	Notes on Statistical Publications	26

List of Tables

Table 2.1: Characteristics of the 170 data zones with a population of less than 500.....	8
Table 2.2: Characteristics of the 114 data zones with a population of 1,500 or more.....	8
Table 2.3: Data zone population summary statistics by council area, 2011.....	9
Table 3.1: Data zones within broad population bands, 2001-2011	11
Table 3.2: Data zone population summary statistics, 2001-2011.....	12
Table 3.3: Population change summary, 2001-2011	12
Table 3.4: Data zones with population increase of 200% or more, 2001-2011	13
Table 3.5: Data zones with population decrease of 50% or more, 2001-2011.....	14
Table 3.6: Distribution of least and most populated data zones by council area, 2001 and 2011	15
Table 4.1: Population estimates by 6-fold urban rural classification, 2011	17
Table 4.2: Population estimates by NUTS2 area, 2011	18
Table 4.3: Population estimates by SIMD 2009 decile, 2011.....	20

List of Figures

Figure 2.1: Distribution of data zone population, 2011.....	7
Figure 2.2: Median age distribution of data zone population, 2011.....	10
Figure 4.1: Change in population by 6-fold urban rural classification, 2001-2011.....	17
Figure 4.2: Change in population by NUTS2 area, 2001-2011	19
Figure 4.3: Population trend for SIMD 2009 deciles, 2001-2011	20
Figure 4.4: Population frequency count by 2011 Scottish Parliamentary Constituency, 2011	21
Figure 4.5: Population frequency count by Westminster Parliamentary Constituency, 2011	22

Main Points

- As at 30th June 2011, the total estimated population of Scotland was 5,254,800. The population estimates for the 6,505 data zones in Scotland ranged from 0 to 8,185. But only 170 data zones (2.6 per cent) had a population of less than 500 and 114 (1.8 per cent) had a population of 1,500 or more.
- The average data zone population for Scotland was 808. The council area with the highest average data zone population was City of Edinburgh (902), with the lowest average in Inverclyde (720).
- The median age for the population of Scotland as a whole in 2011 was 41. But the age distribution of data zone populations varies considerably and the median ages ranged from 19 to 70 in 2011. The peak occurred in the 40-45 age group, with 2,442 data zones having a population median age between 40 and 45.
- The population of most data zones has changed little over the past 10 years, but a growing number experienced more substantial changes. Between mid-2001 and mid-2011 the population of 3,958 data zones changed by less than 10 per cent, while 154 data zones decreased by 20 per cent or more and the population of 807 data zones increased by 20 per cent or more.
- Nearly 70 per cent of the population of Scotland live in settlements of 10,000 or more people.
- The population of rural areas has grown at a faster rate than non-rural areas since 2001 (based on the 2011-2012 Scottish Government Urban Rural Classification).

1. Introduction and Background

- 1.1 This report summarises the mid-2011 Small Area Population Estimates (SAPE) for the 6,505 data zones in Scotland. Data zone population estimates, by age and sex, are updated annually by the National Records of Scotland (NRS) following the publication of the mid-year population estimates at council and health board area levels (available in the [Mid-2011 Population Estimates Scotland](#) publication on the NRS website). The data zone estimates are consistent with mid-year population estimates for council areas.
- 1.2 The data zone population estimates in this report are based on the 2001 Census. The results from the 2011 Census will be used to provide a new base for mid-year population estimates, including those at data zone level. Depending on the results from the Census it may be necessary to revise the 2001 to 2011 mid-year population estimates.
- 1.3 This report is accompanied by a full set of tables showing the mid-2011 population estimates for data zones by gender and five-year age group, available in the [Small Area Population Estimates](#) section of the NRS website.
- 1.4 [Section 2](#) of this report highlights some of the main points to emerge from the mid-2011 population estimates at data zone level, while [Section 3](#) discusses some of the changes that have occurred between 2001 and 2011.
- 1.5 In addition, a number of other tables have been updated. These are the population estimates for urban/rural areas, deprivation areas, the European Union (EU) statistical geography areas, and parliamentary constituencies. The mid-2011 population estimates for each of these areas, built up from data zones on a best-fit basis, have been added to the [Special Area Population Estimates](#) section of the NRS website. A summary of the main points from these tables is included in [Section 4](#).
- 1.6 Data zones are the small area geography used by the Scottish Government (SG) to allow statistics to be available across a number of policy areas. The data zone geography covers the whole of Scotland. They were initially set up to nest within council area boundaries and to have populations of between 500 and 1,000 household residents. As much as possible, data zones were set up to contain households with similar social characteristics and to take into consideration physical boundaries. More information on data zone geography can be found on the [Scottish Government](#) website.
- 1.7 The data zone small area population estimates are derived using the cohort-component method where Census-based population estimates are updated annually by 'ageing on' populations and applying information on births, deaths and migration. Background information, including a description of the methodology used to produce the small area population estimates is available in the [2001-2004 Small Area Population Estimates](#) section of NRS website.
- 1.8 Although the figures reported here and in the tables are given to unit level, it is not implied that the population estimates are accurate to this level of detail. The reason the figures are not rounded is to allow more accurate aggregation of data zones. The population figures are estimates that have gone through a number of stages of processing, each of which may impact on the quality of the estimates. Also, there

are limitations with the administrative data sources used to produce the figures which may increase the uncertainty in the estimates. For example, the allocation of armed forces at data zone level in Scotland relies largely on the distribution from the 2001 Census. In addition, data zone population estimates are constrained to the age/sex distribution at council area level.

- 1.9 Data zone population estimates are an important aspect of providing information at neighbourhood level. They can be used as building blocks for a variety of different geographies that can inform planning and the provision of services at sub-council area level. They are used as the denominator in many of the rates available on the Scottish Neighbourhood Statistics website. They are also important in a number of other applications, such as the development and maintenance of the Scottish Government's Urban Rural Classification and the Scottish Index of Multiple Deprivation (SIMD).
- 1.10 Data zones are unique to Scotland and cannot be compared with small area geographies in other countries. For more information on small area population estimates for England and Wales go to the [Office for National Statistics \(ONS\)](#) website and for Northern Ireland go to the [Northern Ireland Statistics and Research Agency \(NISRA\)](#) website. A paper describing the [Small Area Population Estimates across the UK](#) is available on the NISRA website.
- 1.11 Temporal changes in the characteristics of data zones, including population, have prompted the Scottish Government to review the data zone boundaries. A consultation has taken place and details of this along with the plans for the future of data zones can be found on the [Data Zone Consultation Response](#) section of the SG website. The main impact of the proposed changes, as far as the population estimates are concerned, is that data zones will again have roughly standard population sizes. This will be achieved by merging data zones with low populations with neighbouring ones, and splitting data zones with high populations into two or more. The changes to data zone boundaries are scheduled to come into effect in 2013. The 2011 Census will report the population of the current data zone boundaries.
- 1.12 Small area population estimates were assessed by the UK Statistics Authority (UKSA) in May 2011, along with other population and demographic statistics¹ for Scotland. These statistics can now be designated as National Statistics. This report addresses one of the five requirements set out by the UKSA in the assessment – ‘Ensure that all releases provide commentary that aids user interpretation’.

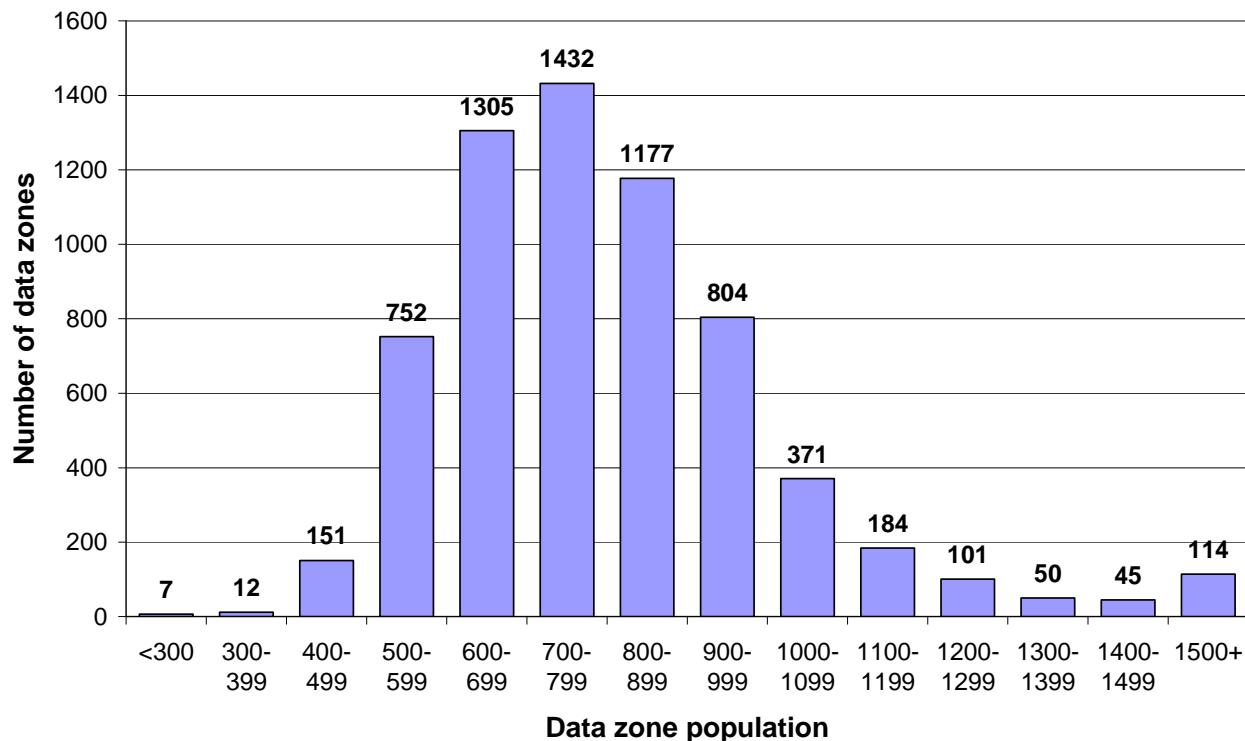
Footnote

- 1) UK Statistics Authority (2011). [Assessment Report 113: Statistics on Population and Demography in Scotland](#) available on the UKSA website.

2. Data Zone Population Estimates, 2011

2.1 The overall estimated population of Scotland at 30 June 2011 was 5,254,800. The population of the 6,505 data zones in Scotland at this time ranged from 0 to 8,185 but the vast majority of the data zones (84%) had between 500 and 999 people (Figure 2.1). A total of 170 data zones had a population of less than 500, while 114 had a population of 1,500 or more. Some of these 114 data zones had a population size substantially greater than 1,500 and, as a result, the mean (average) population size of 808 was higher than the median² (midpoint) of 770.

Figure 2.1: Distribution of data zone population, 2011



Total number of data zones = 6,505.

2.2 The 170 data zones with a population of less than 500 in 2011 were spread throughout Scotland, with no council area having a particularly high number of data zones in this category – 17 in Glasgow City was the highest (Table 2.1). Four council areas (Orkney Islands, Scottish Borders, Shetland Islands, and West Dunbartonshire) had no data zones with a population of less than 500.

2.3 Many of these 170 data zones, especially those with a population of less than 400, are in areas that have been targeted for regeneration by Community Planning Partnerships (CPPs). This is likely to account for the fact that 57 of these data zones were in the 20% most deprived areas of Scotland (Table 2.1). Because of the relatively small size of data zones, major regeneration projects and housing developments can have a big impact on the population size and could, for example,

Footnote

2) The term 'median' used in this report refers to the midpoint value of a distribution – the $((n+1)/2)$ highest value. For example, the median of the data zone populations in Scotland is the $(6505+1)/2 = 3253^{\text{rd}}$ highest population, which in 2011 was 770.

result in the demolition of most or all of the dwellings in a data zone. Three data zones in Glasgow no longer had anybody living in them in 2011.

2.4 When analysed by urban rural classification, the number of data zones with a population of less than 500 is largely determined by the percentage of the total population living in each classification ([Section 4](#)). Most of the 170 data zones are in the urban areas, largely because these are the areas where most data zones are located.

Table 2.1: Characteristics of the 170 data zones with a population of less than 500

Location		Deprivation		Urban/Rural	
Council	No. of datazones	Quintile*	No. of datazones	Classification**	No. of datazones
Glasgow City	17	1 (most deprived)	57	Large urban	52
North Lanarkshire	15	2	36	Other urban	65
South Lanarkshire	14	3	32	Accessible small towns	21
Highland	11	4	20	Remote small towns	8
Moray	11	5 (least deprived)	25	Accessible rural	10
Inverclyde	9			Remote rural	14
Others	<8 each				

* Quintile 1 consists of the 20% (1,301) most deprived data zones, quintile 2 the next 20% most deprived, and so on, using the 2009 Scottish Index of Multiple Deprivation.

** 2011-2012 Urban Rural Classification.

2.5 There were 114 data zones that had a population of 1,500 or more in 2011. These data zones were spread throughout Scotland, with no council area having a particularly high number of data zones in this category – 17 in Glasgow City was the highest (Table 2.2). Seven council areas (Angus, East Renfrewshire, Eilean Siar, Orkney Islands, Shetland Islands, South Ayrshire and West Dunbartonshire) had no data zones with a population of 1,500 or more.

2.6 Few of these 114 data zones are in the most deprived areas or in small towns or remote rural areas (Table 2.2). Many of the 114 data zones are in areas where house building has pushed up the local population in recent years. Others have a high population because of the presence of large communal establishments such as prisons, armed forces bases, or students' halls of residence. The relatively high number of accessible rural data zones (21) may indicate the development of rural areas close to cities and larger towns.

Table 2.2: Characteristics of the 114 data zones with a population of 1,500 or more

Location		Deprivation		Urban/Rural	
Council	No. of datazone s	Quintile*	No. of datazones	Classification**	No. of datazones
Glasgow City	17	1 (most deprived)	5	Large urban	54
City of Edinburgh	16	2	20	Other urban	30
Aberdeenshire	9	3	26	Accessible small towns	4
North Lanarkshire	9	4	36	Remote small towns	1
Dundee City	7	5 (least deprived)	27	Accessible rural	21
South Lanarkshire	7			Remote rural	4
Others	<7 each				

* Quintile 1 consists of the 20% (1,301) most deprived data zones, quintile 2 the next 20% most deprived, and so on, using the 2009 Scottish Index of Multiple Deprivation.

** 2011-2012 Urban Rural Classification (6-fold).

2.7 Table 2.3 shows how the characteristics of data zones differed between council areas in 2011. The highest mean (average) data zone populations were for City of Edinburgh (902), Scottish Borders (870) and Glasgow City (863). The lowest mean populations were for Inverclyde (720), Eilean Siar (724) and Argyll & Bute (734). For all council areas the median (midpoint) was lower than the mean (average). This is likely to indicate that most council areas have a number of data zones with large populations that inflate the mean but have no effect on the median. The lower quartile indicates the population below which 25 per cent of the data zones lie for each local authority. For example, 25 per cent of the 267 data zones in Aberdeen City have a population of 680 or less. Similarly, the upper quartile indicates the population above which 25 per cent of the data zones lie for each local authority. So, 25 per cent of the 267 data zones in Aberdeen City have a population of 916 or more. In other words, 50 per cent of the data zones have a population between the lower and upper quartile values.

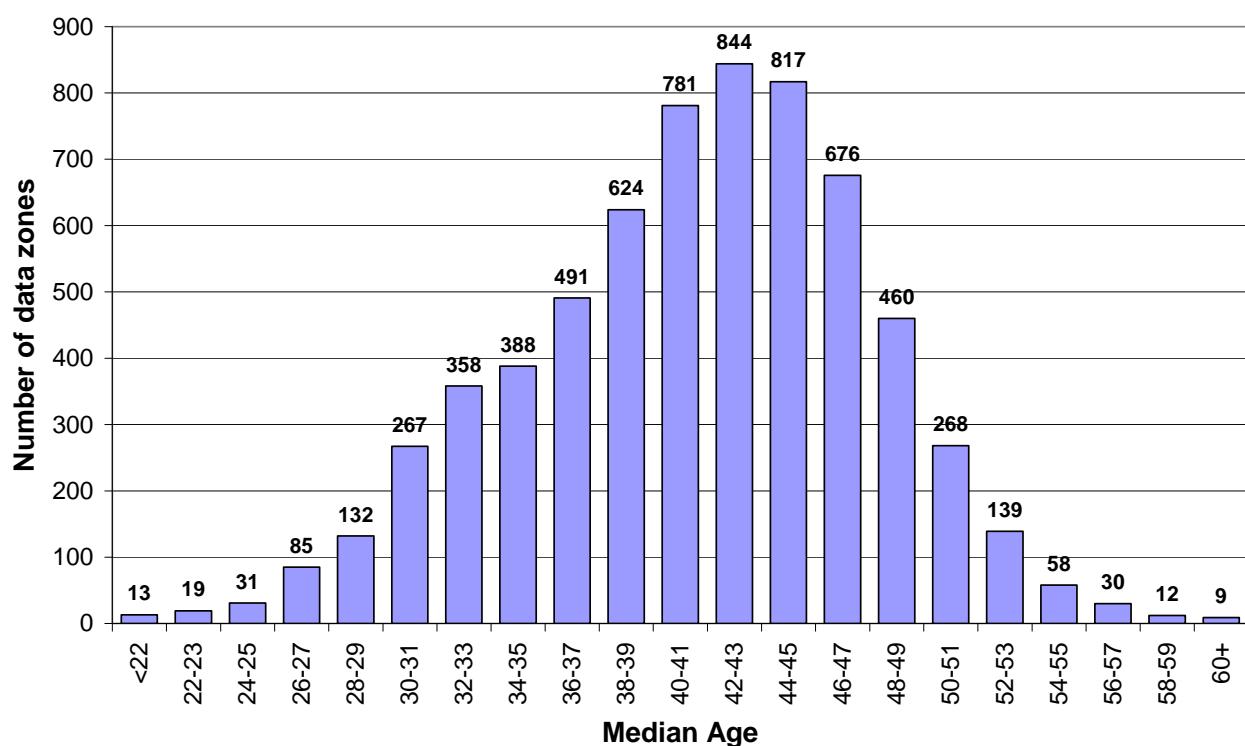
Table 2.3: Data zone population summary statistics by council area, 2011

Council		Data zones						
Name	Total popn. *	Number	Minimum popn.	Maximum popn.	Mean popn.	Median popn.	Lower quartile	Upper quartile
Aberdeen City	220,420	267	448	2,331	826	801	680	916
Aberdeenshire	247,600	301	438	2,485	823	782	642	932
Angus	110,630	142	473	1,387	779	737	664	866
Argyll & Bute	89,590	122	401	2,035	734	725	609	817
Clackmannanshire	50,770	64	433	2,913	793	704	628	906
Dumfries & Galloway	148,060	193	485	1,864	767	743	641	876
Dundee City	145,570	179	312	2,304	813	785	645	899
East Ayrshire	120,200	154	420	2,310	781	743	660	863
East Dunbartonshire	104,570	127	498	1,605	823	816	714	910
East Lothian	98,170	120	450	2,390	818	751	668	890
East Renfrewshire	89,850	120	475	1,374	749	726	627	865
Edinburgh, City of	495,360	549	211	3,310	902	860	746	991
Eilean Siar	26,080	36	453	1,000	724	709	619	844
Falkirk	154,380	197	454	2,611	784	732	617	859
Fife	367,370	453	462	8,185	811	765	647	884
Glasgow City	598,830	694	0	2,538	863	824	708	975
Highland	222,370	292	455	2,942	762	718	635	850
Inverclyde	79,220	110	310	1,541	720	706	609	806
Midlothian	82,370	112	464	2,023	735	698	629	794
Moray	87,260	116	391	2,589	752	700	566	827
North Ayrshire	135,130	179	445	2,176	755	732	631	873
North Lanarkshire	326,680	418	385	1,975	782	731	638	869
Orkney Islands	20,160	27	538	1,065	747	714	614	870
Perth & Kinross	149,520	175	407	1,646	854	843	678	975
Renfrewshire	170,650	214	309	1,922	797	786	653	897
Scottish Borders	113,150	130	519	1,833	870	869	721	989
Shetland Islands	22,500	30	520	1,020	750	715	674	866
South Ayrshire	111,560	147	446	1,422	759	740	646	846
South Lanarkshire	312,660	398	441	3,764	786	743	648	855
Stirling	90,770	110	471	2,187	825	788	669	918
West Dunbartonshire	90,360	118	515	1,262	766	760	668	857
West Lothian	172,990	211	433	3,846	820	756	653	912

* Source: [Mid-2011 Population Estimates Scotland](#), available on the the National Records of Scotland (NRS) website.

2.8 As well as variations in the population size of data zones, the age distribution of data zone populations varies considerably (Figure 2.2). While the median (midpoint) age for Scotland as a whole was 41, the median ages at data zone level ranged from 19 to 70. There were 13 data zones with a population median age of 21 or less. These are areas with a high student population (living either in residential accommodation or halls of residence) or data zones with some other type of large communal establishment for young people, such as a young offenders institution. At the other end of the scale there were 9 data zones with a median age of 60 or more. These were mainly in popular retirement areas and data zones with substantial accommodation for the elderly. The peak age group was the early 40s, with 2,442 data zones having a population median age between 40 and 45.

Figure 2.2: Median age distribution of data zone population, 2011



Total number of data zones = 6,502 (three data zones with zero population have been excluded).

3. Data Zone Population Change, 2001-2011

3.1 Between mid-2001 and mid-2011 the overall population of Scotland increased by 190,600 from 5,064,200 to 5,254,800. Table 3.1 shows how data zone population sizes have changed over this period. Initially, data zones were set up to have a total household population of between 500 and 1,000 wherever possible. In 2001, a small number (29) of data zones had a population of less than 500, while 372 had a population of 1,000 or more. (A number of these 372 data zones contained sizeable non-household populations, such as prisons, halls of residence, and care homes.) By 2011 the number of data zones with a population of less than 500 had risen to 170, while 865 data zones had a population of 1,000 or more.

Table 3.1: Data zones within broad population bands, 2001-2011

	< 300		300-499		500-999		1,000-1,499		1,500 +	
	No.	%	No.	%	No.	%	No.	%	No.	%
2001	0	0.0	29	0.4	6,104	93.8	360	5.5	12	0.2
2002	0	0.0	65	1.0	6,044	92.9	384	5.9	12	0.2
2003	0	0.0	87	1.4	5,959	91.6	445	6.8	14	0.2
2004	1	0.0	112	1.7	5,876	90.3	498	7.7	18	0.3
2005	2	0.0	113	1.7	5,813	89.4	552	8.5	25	0.4
2006	2	0.0	129	2.0	5,751	88.4	584	9.0	39	0.6
2007	4	0.1	127	2.0	5,714	87.8	600	9.2	60	0.9
2008	4	0.1	138	2.1	5,638	86.6	649	10.0	76	1.2
2009	7	0.1	159	2.4	5,572	85.7	685	10.5	82	1.3
2010	6	0.1	164	2.5	5,517	84.8	722	11.1	96	1.5
2011	7	0.1	163	2.5	5,470	84.1	751	11.5	114	1.8

Total number of data zones each year = 6,505.

3.2 Table 3.2 further illustrates the 'population drift' noted above. The increase in the mean (average) data zone population from 779 in 2001 to 808 in 2011 reflects the growing population of Scotland as a whole. However, the median (midpoint) has remained relatively constant over most of this period. The percentiles and quartiles show the population below which a particular percentage of the population lies³. In 2011, for example, 5 per cent of the data zones in Scotland had a population of 527 or less. The spread of the lower and upper quartiles shows a modest increase from 220 in 2001 to 245 in 2011⁴, whereas the spread from the 5th to the 95th percentile has increased from 460 in 2001 to 659 in 2011. These summary statistics indicate that, while the majority of data zones have changed little over the past 11 years, there is a growing number that have experienced substantial changes.

Footnotes

3) The lower quartile is the same as the 25th percentile and the upper quartile is the same as the 75th percentile.

4) The range (called the inter-quartile range) is 886 – 666 = 220 for 2001, and 904 – 659 = 245 for 2011.

Table 3.2: Data zone population summary statistics, 2001-2011

Year	Minimum popn.	Maximum popn.	Mean popn.	Median popn.	5 th percentile	Lower quartile	Upper quartile	95 th percentile
2001	477	2,815	779	775	546	666	886	1,006
2002	453	2,859	777	771	547	663	885	1,012
2003	377	2,841	777	769	542	662	885	1,020
2004	248	3,200	781	769	540	661	887	1,037
2005	244	4,024	783	768	537	660	887	1,050
2006	0	4,510	787	768	537	657	888	1,071
2007	0	5,219	791	767	536	657	891	1,091
2008	0	6,453	795	768	535	658	894	1,118
2009	0	7,061	798	767	531	658	896	1,137
2010	0	7,624	803	768	528	659	899	1,161
2011	0	8,185	808	770	527	659	904	1,186

3.3 Table 3.3 provides further information on the nature of the changes at data zone level between 2001 and 2011. Although the population of Scotland increased overall between 2001 and 2011, more data zones had a decrease in population than an increase in population. In this period the population of 3,695 (56.8 per cent) decreased, while 2,810 data zones (43.2 per cent) either increased or had the same population in these years.

3.4 Most of the big changes were in data zones where the population increased. A total of 807 data zones had population increases of 20 per cent or more, compared with 154 data zones which had a comparable population decrease. By contrast, most of the small changes were in data zones where the population decreased. A total of 3,958 data zones had a population change of less than 10 per cent, of which 2,549 data zones had a population decrease, compared with 1,370 which had an increase (the other 39 had the same population in 2011 as in 2001). Many of the small decreases may be related to the declining average household size in recent years, with more people living alone or in smaller households⁵.

Table 3.3: Population change summary, 2001-2011

Change in population 2001-2011	Number of data zones	Percentage of data zones
No change	39	0.6
< 5% increase	795	12.2
5% to < 10% increase	575	8.8
10% to < 20% increase	594	9.1
20% to < 50% increase	546	8.4
50% or more increase	261	4.0
Total increase	2,771	42.6
< 5% decrease	1,247	19.2
5% to < 10% decrease	1,302	20.0
10% to < 20% decrease	992	15.2
20% to < 50% decrease	137	2.1
50% to 100% decrease	17	0.3
Total decrease	3,695	56.8

Footnote

5) ['Estimates of Households and Dwellings in Scotland, 2011'](#), available on the NRS website.

3.5 Between 2001 and 2011 the population of 19 data zones increased by 200 per cent or more (Table 3.4). Each of these data zones is in an area which has seen substantial house building in recent years. For example, the number of dwellings⁶ in data zone S01002622 rose from 905 in 2003⁷ to 3,226 in 2011. Similarly, the population increases in the other data zones in Table 3.4 were consistent with a rise in the number of dwellings.

Table 3.4: Data zones with population increase of 200% or more, 2001-2011

Data zone	Council	2001 population	2011 population	% change
S01002622	Fife	907	8,185	802
S01006364	West Lothian	621	3,846	519
S01005804	South Lanarkshire	631	3,764	497
S01003778	Highland	517	2,942	469
S01000444	Aberdeenshire	576	2,485	331
S01002806	Fife	587	2,318	295
S01002411	Falkirk	664	2,611	293
S01002567	Falkirk	592	2,325	293
S01002317	Edinburgh, City of	877	3,310	277
S01001406	East Ayrshire	617	2,310	274
S01004255	Moray	694	2,510	262
S01001562	East Lothian	674	2,390	255
S01003819	Highland	614	2,093	241
S01004471	North Ayrshire	650	2,176	235
S01001232	Dundee City	693	2,304	232
S01001264	Dundee City	569	1,882	231
S01000347	Aberdeenshire	481	1,578	228
S01000398	Aberdeenshire	749	2,410	222
S01003792	Highland	687	2,104	206

3.6 Between 2001 and 2011 the population of 17 data zones decreased by 50 per cent or more (Table 3.5). These data zones are in areas that have been targeted for regeneration. Most had either seen a corresponding decrease in the number of dwellings in the data zone due to demolition work, or had a substantial proportion of dwellings that were no longer occupied in 2011.

3.7 While the data zones with the big population increases (Table 3.4) were found throughout a large part of Scotland, the data zones that experienced the biggest population decreases were concentrated in a small number of areas, such as Glasgow City and Inverclyde. This is likely to be an indication of the areas of Scotland where urban regeneration has had the biggest impact on data zone population sizes.

Footnotes

6) [Estimates of Households and Dwellings in Scotland, 2011](#), available on the NRS website.

7) Dwelling counts at data zone level are not available for 2001 or 2002. The 2003 figures are used here for indicative purposes.

Table 3.5: Data zones with population decrease of 50% or more, 2001-2011

Data zone	Council	2001 population	2011 population	% change
S01003031	Glasgow City	523	0	-100
S01003319	Glasgow City	804	0	-100
S01003505	Glasgow City	722	0	-100
S01002296	Edinburgh, City of	735	211	-71
S01003491	Glasgow City	732	296	-60
S01003540	Glasgow City	963	394	-59
S01001166	Dundee City	840	349	-58
S01003357	Glasgow City	1,054	445	-58
S01003126	Glasgow City	919	400	-56
S01002282	Edinburgh, City of	964	421	-56
S01004090	Inverclyde	705	310	-56
S01003673	Glasgow City	727	323	-56
S01004039	Inverclyde	798	364	-54
S01004060	Inverclyde	933	433	-54
S01003548	Glasgow City	528	247	-53
S01003578	Glasgow City	531	251	-53
S01003456	Glasgow City	746	373	-50

3.8 [Table 3.6](#) shows how the distribution of the 5 per cent least populated and 5 per cent most populated data zones in 2001 compares with 2011. In 2001, Highland (26 data zones) and Aberdeenshire (24 data zones) council areas had the highest number of data zones in the 5 per cent least populated category, while in 2011 South Lanarkshire (28 data zones), North Lanarkshire (27 data zones) and Glasgow City (26 data zones) had the highest number of data zones in this category. There are no council areas that particularly stand out in the list of least populated data zones. It is slightly different for the 5 per cent most populated data zones, where Glasgow City and City of Edinburgh council areas have notably higher numbers than the other council areas. In 2001 Glasgow City had 75 of the 5 per cent most populated data zones, while City of Edinburgh had 52. These council areas had fewer data zones in this category in 2011 than in 2001, but they were still the highest in Scotland.

3.9 Among the other notable results from [Table 3.6](#) we see that East Dunbartonshire had 16 of the most populated data zones in 2001, compared with 2 in 2011. By contrast, South Lanarkshire had 2 of the most populated data zones in 2001, compared with 20 in 2011.

3.10 The number of data zones varies from one council area to the next, so we would expect some councils to have more data zones in each of these categories than other councils. Also, the fact that a data zone moves into, or out of, one of these categories does not necessarily indicate a change in the population of that data zone, only a change in the ranking. Changes in the population of other data zones can affect whether a data zone that was in the 5 per cent most populated in 2001, for example, remains in that category in 2011.

Table 3.6: Distribution of least and most populated data zones by council area, 2001 and 2011

Council	Number of data zones	5% least populated		5% most populated	
		2001	2011	2001	2011
Aberdeen City	267	11	10	20	17
Aberdeenshire	301	24	14	19	17
Angus	142	10	5	8	5
Argyll & Bute	122	11	12	3	2
Clackmannanshire	64	3	4	1	3
Dumfries & Galloway	193	18	11	4	2
Dundee City	179	4	10	9	10
East Ayrshire	154	8	7	6	6
East Dunbartonshire	127	1	2	16	2
East Lothian	120	9	5	4	9
East Renfrewshire	120	10	8	1	1
Edinburgh, City of	549	12	7	52	45
Eilean Siar	36	4	3	1	0
Falkirk	197	22	15	10	10
Fife	453	23	16	19	20
Glasgow City	694	15	26	75	57
Highland	292	26	21	2	9
Inverclyde	110	3	14	2	2
Midlothian	112	5	5	0	3
Moray	116	11	18	3	6
North Ayrshire	179	12	12	8	2
North Lanarkshire	418	21	27	20	27
Orkney Islands	27	1	0	0	0
Perth & Kinross	175	12	7	11	13
Renfrewshire	214	6	14	17	8
Scottish Borders	130	2	2	0	6
Shetland Islands	30	2	2	0	0
South Ayrshire	147	9	8	1	3
South Lanarkshire	398	19	28	2	20
Stirling	110	4	5	5	5
West Dunbartonshire	118	1	2	0	1
West Lothian	211	8	10	4	16
Scotland *	6,505	327	330	323	327

* The total number of data zones may not be exactly 5% (325) because of 'ties' in the population size ranking.

4. Other Small Area Population Estimates

- 4.1 In addition to data zone population estimates, National Records of Scotland (NRS) also publishes data zone-based population estimates for other geographies:
 - Scottish Government urban rural classification
 - Nomenclature of Units for Territorial Statistics (NUTS) – the statistical geography of the European Union
 - Scottish Index of Multiple Deprivation (SIMD) deciles
 - Scottish Parliamentary Constituencies (SPC)
 - Westminster Parliamentary Constituencies (WPC)
- 4.2 Mid-year population estimates for these geographies for 2011 and earlier years are available within the [Special Area Population Estimates](#) section of the NRS website. They are produced by aggregating the data zone population estimates, using the appropriate lookup table. The data zone lookup tables can be found in the [Scottish Neighbourhood Statistics Reference Material](#) section of the Scottish Government website. Data zones do not always fit these other boundaries exactly. In the case where a data zone boundary crosses that of another geography, the data zone is allocated to the area that contains the population-weighted centroid of the data zone. An evaluation of non-standard geography population estimates⁸ was carried out to assess population estimates built up from data zones. This showed that, for certain higher-level geographies, population estimates built up from data zones gave good results.
- 4.3 The population estimates for these areas, along with those for a number of other geographies, are available on the [Scottish Neighbourhood Statistics](#) website.

Urban Rural Classification Populations

- 4.4 The Scottish Government Urban Rural Classification defines urban and rural areas across Scotland. The classification is based on population and accessibility (using drive-time analysis to identify accessible and remote areas). The main classifications are the 6-fold and 8-fold classifications which distinguish between urban, rural and remote areas using six and eight categories, respectively. Each data zone is assigned to one of the categories. The classification is updated every two years and the population estimates published on our website relate to the 2011-2012 classification. More background information on the urban rural classification is available on the Scottish Government's [Urban Rural Classification](#) website.
- 4.5 [Population Estimates by Urban Rural Classification](#) for the 6-fold and 8-fold classifications are available on the NRS website. The mid-2011 population estimates, based on the 2011-2012 6-fold classification, show that nearly 70 per cent of the population of Scotland live in settlements of 10,000 or more people (the 'large urban' and 'other urban' areas), while nearly 1 million people live in the 'accessible' and 'remote' rural areas ([Table 4.1](#)).

Footnote

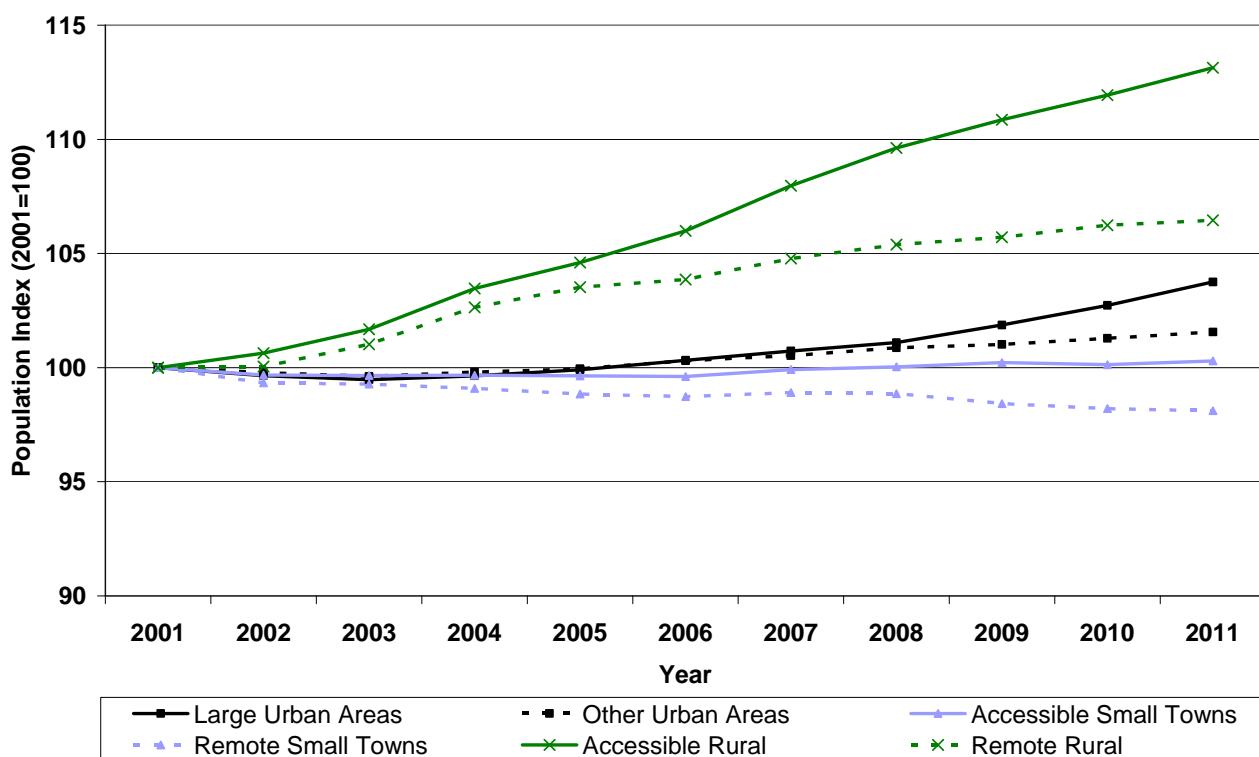
- 8) [Evaluation of Non Standard Geography Population Estimates](#), available on the NRS website.

Table 4.1: Population estimates by 6-fold urban rural classification, 2011

Classification	2011 population	2011 population (%)
Large urban areas	2,061,016	39.2
Other urban areas	1,584,400	30.2
Accessible small towns	451,150	8.6
Remote small towns	186,764	3.6
Accessible rural areas	631,379	12.0
Remote rural areas	340,091	6.5

4.6 Based on the mid-2001 population estimates, Figure 4.1 shows that areas defined as 'accessible rural' in the 2011-2012 classification grew at a faster rate than the other areas between 2001 and 2011. The population of accessible rural areas rose by over 13 per cent and there was an increase of more than 6 per cent in the population of remote rural areas during this period. The changes in the other areas were on a smaller scale, with the population of remote small towns falling by 2 per cent.

Figure 4.1: Change in population by 6-fold urban rural classification, 2001-2011



4.7 The definition of urban and rural areas is specific to Scotland and population estimates for these areas cannot be compared with similar estimates for other countries. Urban and rural population estimates can be used to support the work of various national and local authority government departments, such as the Rural Development Council⁹.

Footnote

9) Refer to, for example, '[Socio-economic briefing on rural Scotland: Demography](#)', 2010 publication on Scottish Government website.

NUTS Populations

4.8 The European Union Nomenclature of Units for Territorial Statistics (NUTS) Regulation, enacted in June 2003, formalised the statistical geography of the European Union (EU). The United Kingdom NUTS structure was established in 1998 following an extensive consultation exercise. Some changes were made to the structure following a review in 2006. A further review took place in 2010 and the amendments were implemented on 1 January 2012 (although Scotland was not affected by the latest changes). The purpose of the NUTS regional structure is to provide a single uniform breakdown of territorial units for the production of regional statistics for the EU. The NUTS regional structure is used for various policy purposes, the most important of which is for the allocation of Objective 1 structural funding whereby if any NUTS2 region has a Gross Domestic Product (GDP) per head less than 75 per cent of the EU average it is entitled to financial support.

4.9 There are three levels of NUTS geography. It is a hierarchical structure - Scotland is one of the NUTS1 areas of the UK. Within Scotland there are 4 NUTS2 areas and 23 NUTS3 areas. The previously named NUTS4 areas were renamed (Local Administrative Units) LAU1 but were not included in the regulation – there are 41 LAU1 areas in Scotland. Maps of the NUTS/LAU areas of Scotland are included in the [Boundary Mapping](#) section of the Scottish Government website.

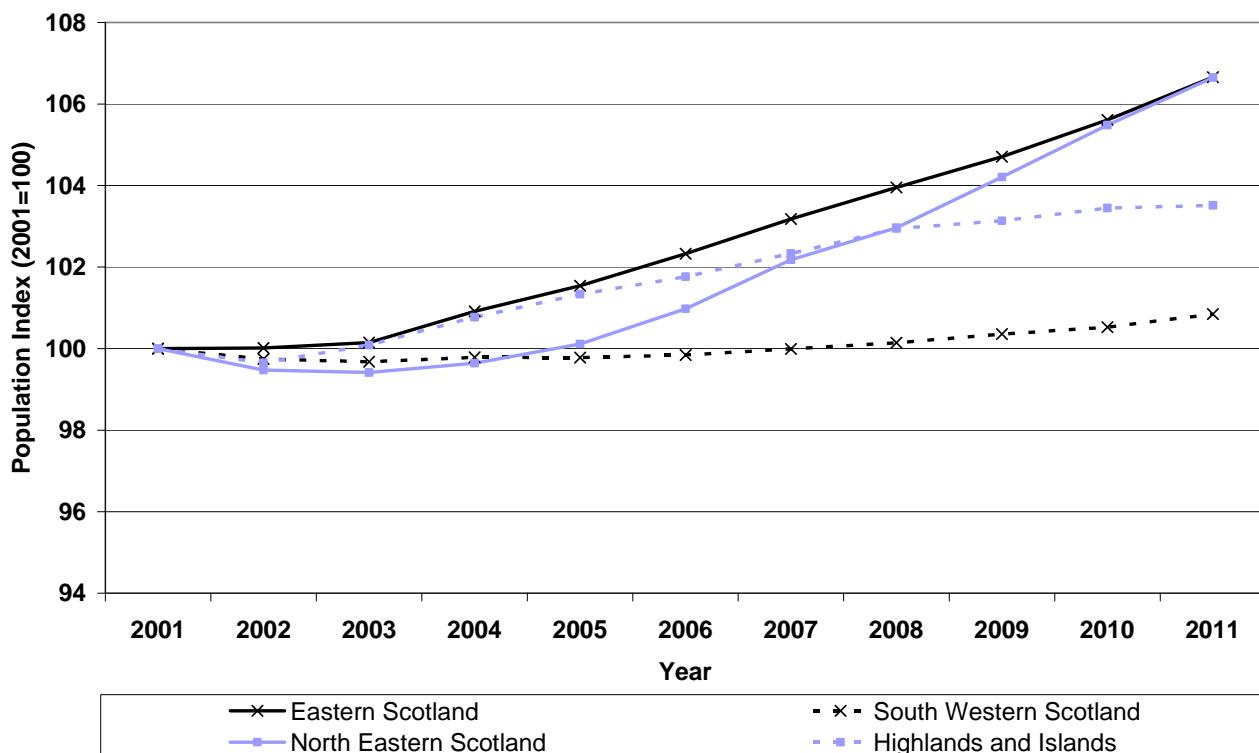
4.10 [NUTS Population Estimates](#) by single year of age and sex for NUTS2, NUTS3 and LAU1 areas are provided on the NRS website. Table 4.2 shows the population breakdown of the NUTS2 areas of Scotland for 2011.

Table 4.2: Population estimates by NUTS2 area, 2011

NUTS2 area	2011 population	2011 population (%)
Eastern Scotland	2,031,050	38.7
South Western Scotland	2,307,059	43.9
North Eastern Scotland	468,020	8.9
Highlands and Islands	448,671	8.5

4.11 Since 2001, the populations of the NUTS2 areas Eastern Scotland and North Eastern Scotland have grown by almost 7 per cent ([Figure 4.2](#)). The population of the Highlands and Islands has increased by over 3 per cent, while the population of South Western Scotland has changed by less than 1 per cent over this period.

Figure 4.2: Change in population by NUTS2 area, 2001-2011



4.12 These population estimates were derived by aggregating data zone estimates. Many NUTS areas are equivalent to council areas or groups of council areas, so NUTS population estimates will be consistent with those for council areas. However, some NUTS areas (those in Argyll & Bute, Highland, Moray, and North Ayrshire council areas) do not correspond to council areas. In these cases data zones have been allocated to NUTS areas on a best-fit basis.

SIMD Decile Populations

4.13 The Scottish Index of Multiple Deprivation (SIMD) ranks each of the 6,505 data zones in Scotland from 1 (most deprived) to 6,505 (least deprived). The index is updated every three years. The most recent was published in 2009 (revised in 2010) and is known as SIMD 2009. More information on SIMD 2009 and earlier versions is available on the SIMD section of the [Scottish Government](#) website.

4.14 [Population Estimates by SIMD 2009](#) are available on the NRS website, by single year of age and sex for SIMD 2009 deciles, where each decile has 10 per cent of the data zones in Scotland (either 650 or 651 data zones) grouped according to ascending SIMD ranking¹⁰. Table 4.3 shows that the SIMD 2009 decile population estimates for 2011 ranged from 494,788 in decile 1 (the most deprived areas) to 561,755 in decile 8.

Footnote

10) Decile 1 has the 651 most deprived data zones, decile 2 the next 650 data zones according to deprivation ranking, and so on, up to decile 10 which has the 650 least deprived data zones.

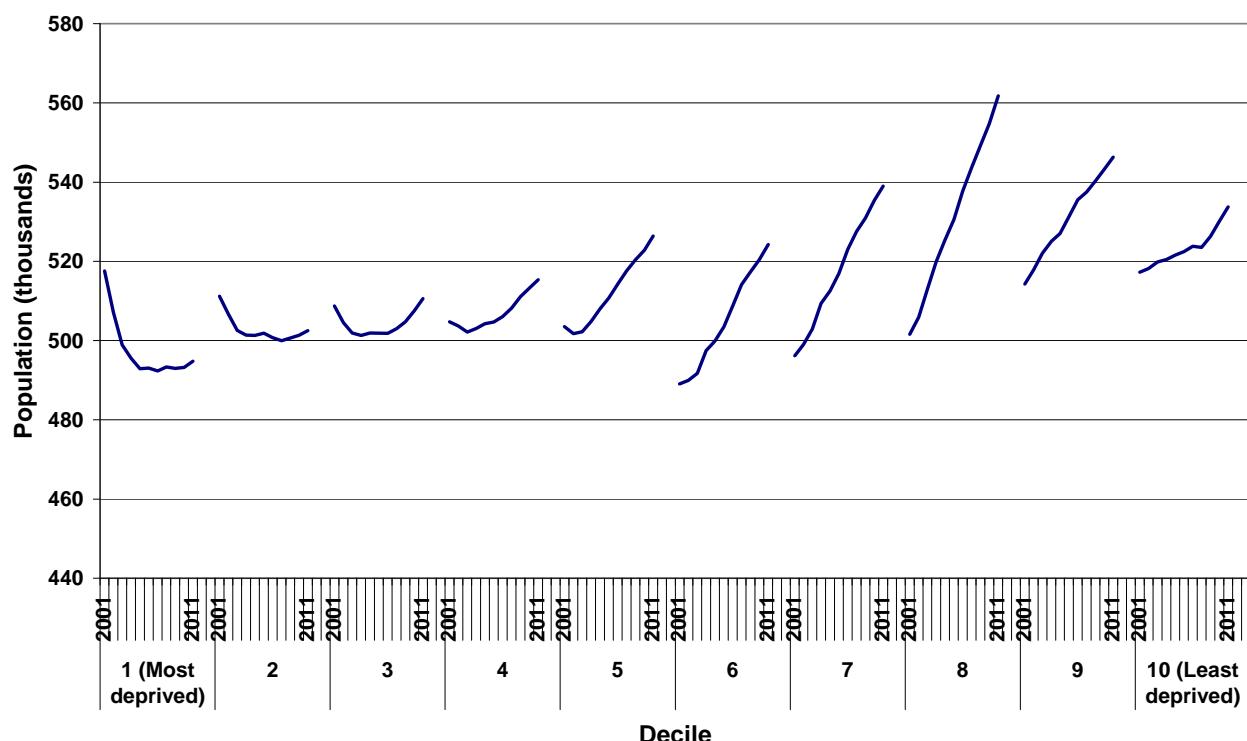
Table 4.3: Population estimates by SIMD 2009 decile, 2011

SIMD decile*	2011 population	2011 population (%)
1 (Most deprived 10%)	494,788	9.4
2	502,513	9.6
3	510,621	9.7
4	515,379	9.8
5	526,411	10.0
6	524,271	10.0
7	539,018	10.3
8	561,755	10.7
9	546,315	10.4
10 (Least deprived 10%)	533,729	10.2

* Each decile contains 10% (650 or 651) of the data zones in Scotland.

4.15 Between 2001 and 2011, the population of the 10 per cent most deprived data zones (decile 1) fell by around 23,000. Figure 4.3 shows the trend from 2001 to 2011 for each SIMD decile separately. Most of this decline took place between 2001 and 2004, since when the population of the most deprived areas has remained fairly steady, although there are signs that it is beginning to increase. It is likely that the regeneration of the most deprived areas (and the associated de-population in many cases) along with the relatively constant population of Scotland between 2001 and 2004 resulted in the declining population of these deprived areas during this period. From 2005 onwards there has been a steady increase in the population of Scotland, resulting in corresponding increases across the SIMD 2009 deciles, except in the most deprived areas where the population has remained fairly constant.

Figure 4.3: Population trend for SIMD 2009 deciles, 2001-2011



Decile 1 = 10% (651) most deprived data zones, decile 10 = 10% (650) least deprived data zones, using SIMD 2009.

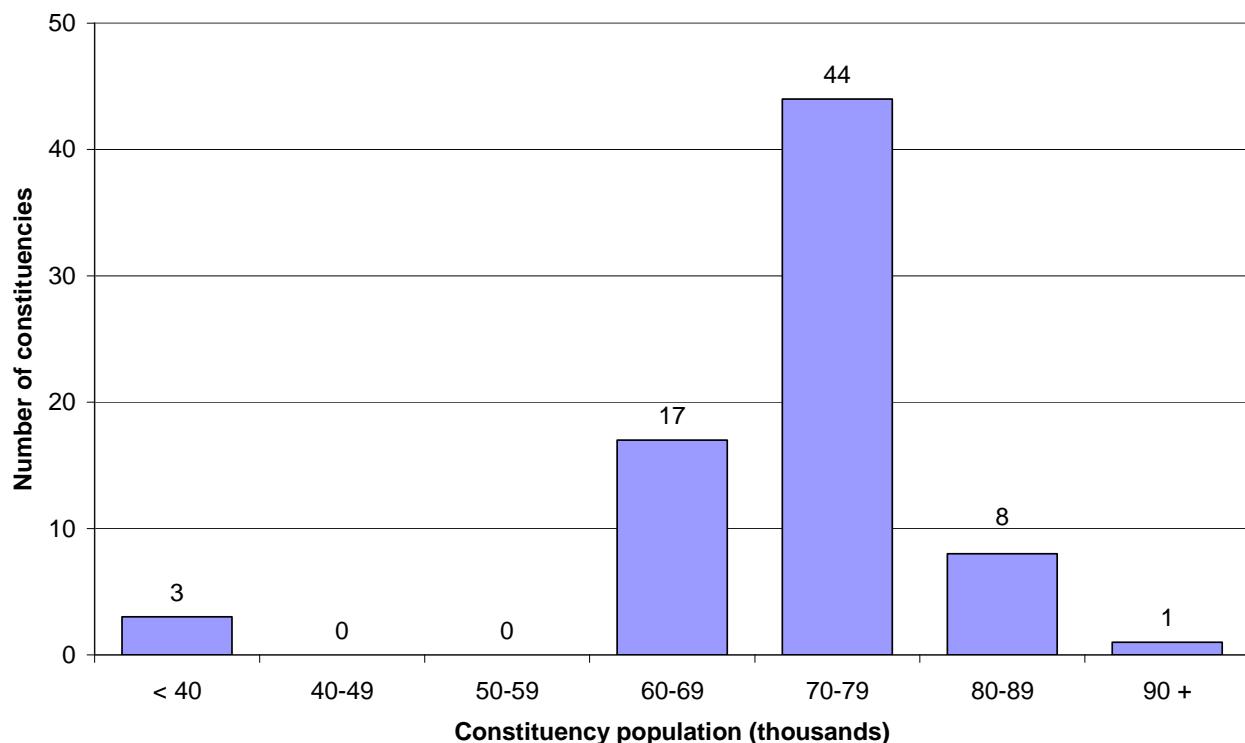
Scottish Parliamentary Constituency Populations

4.16 The Members of the Scottish Parliament (MSPs) at Holyrood represent 73 constituencies. The constituency boundaries were re-drawn for the 2011 election. The population estimates reported here relate to the 2011 boundaries.

4.17 Constituency population estimates were derived by aggregating data zone population estimates. However, data zones do not always fit the constituency boundaries exactly and those that cross a constituency boundary are allocated to the constituency that contains the population-weighted centroid of the data zone.

4.18 [Scottish Parliamentary Constituency Population Estimates](#) by single year of age and sex are available on the NRS website. The constituency population estimates for 2011 range from 20,160 (Orkney Islands) to 90,891 (Edinburgh Central). Figure 4.4 shows the distribution of constituency populations, with the majority between 70,000 and 80,000. The proportion of people aged 18 and over¹¹ ranged from 76.8 per cent in Almond Valley to 89.4 per cent in Edinburgh Central.

Figure 4.4: Population frequency count by 2011 Scottish Parliamentary Constituency, 2011



Footnote

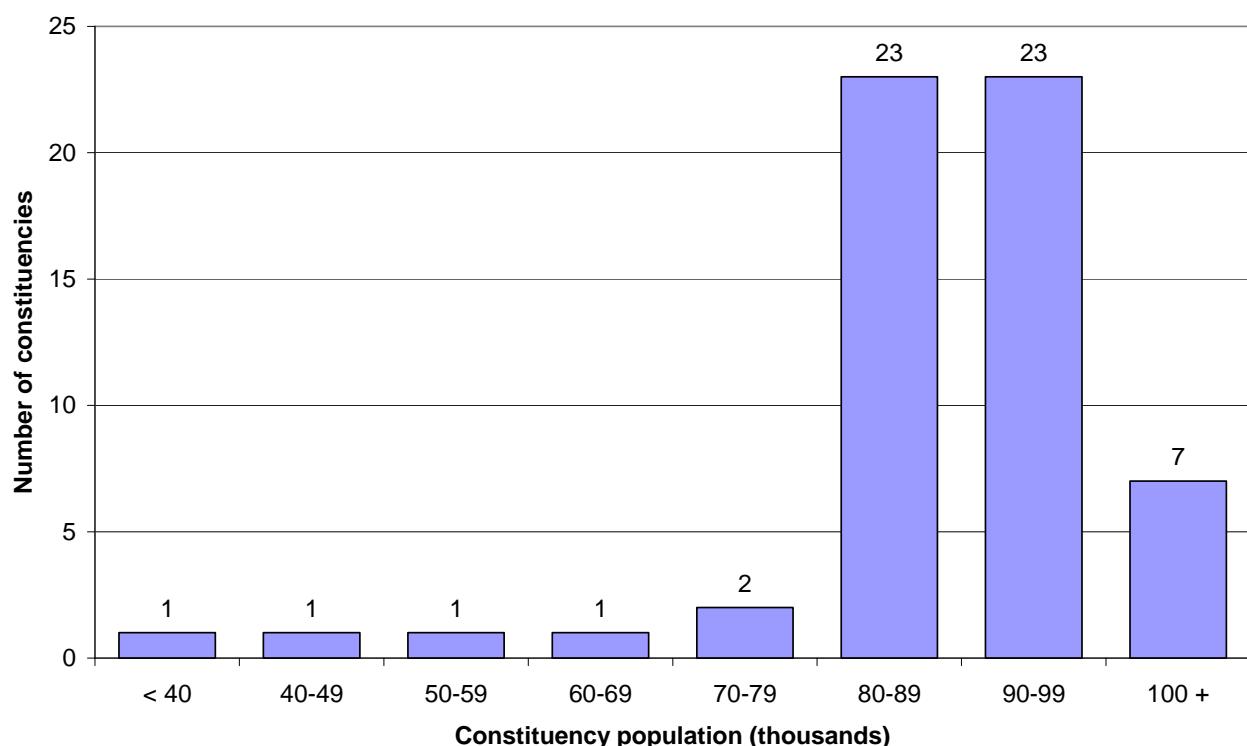
11) Not necessarily the same as those registered to vote in the constituency, but a reasonable indicator in most cases.

Westminster Parliamentary Constituency Populations

4.19 The Members of Parliament (MPs) at Westminster represent 59 Scottish constituencies. The population estimates reported here relate to the boundaries used in the 2010 general election. Constituency population estimates were derived by aggregating data zone population estimates. However, data zones do not always fit the constituency boundaries exactly and those that cross a constituency boundary are allocated to the constituency that contains the population-weighted centroid of the data zone. Previous research showed that the data zone to constituency fit was good in all constituencies except Glasgow North and Glasgow North West. Based on this research an adjustment of +3.7 per cent has been made to the population of Glasgow North each year, spread equally across the age/sex distribution. A corresponding adjustment of -3.7 per cent has been made to Glasgow North West.

4.20 [Westminster Parliamentary Constituency Population Estimates](#) by single year of age and sex are available on the NRS website. The constituency population estimates for 2011 ranged from 26,080 (Na h-Eileanan an Iar) to 110,341 (Linlithgow and East Falkirk). Figure 4.5 shows the distribution of constituency populations, with the majority between 80,000 and 100,000. The proportion of people aged 18 and over¹² ranged from 77.2 per cent in Livingston to 85.5 per cent in Glasgow North.

Figure 4.5: Population frequency count by Westminster Parliamentary Constituency, 2011



Footnote

12) Not necessarily the same as those registered to vote in the constituency, but a reasonable indicator in most cases.

4.21 Population estimates for constituencies in England and Wales are produced by the Office for National Statistics (ONS) using a similar method – but using a postcode best-fit methodology rather than a data zone best-fit methodology.

4.22 The constituency population estimates for both the Holyrood and Westminster parliaments are useful in providing an age and sex breakdown of the people living in each constituency.

5. Notes and Definitions

This section gives brief definitions of statistical and other terms used in this report.

Mean

The average of a group of values. The sum of the values divided by the number of values in the group.

Median

The midpoint of a group of values which have been arranged in ascending or descending order. 50% of the values will be less than or equal to the median, the remainder will be greater than the median. (The split may not be exactly 50/50, depending on how many values in the group have the median value.)

Quartile

Similar to median, except that quartiles split the values into four equal groups instead of two. For example, the first quartile has the first 25% of the values. The first quartile is usually called the lower quartile; the second quartile is the same as the median; and the third quartile is usually called the upper quartile.

Quintile

Similar to median, except that quintiles split the values into five equal groups instead of two. For example, the first quintile has the first 20% of the values.

Decile

Similar to median, except that deciles split the values into ten equal groups instead of two. For example, the first decile has the first 10% of the values.

Percentile

Similar to median, except that percentiles split the values into one hundred equal groups instead of two. For example, the first percentile has the first 1% of the values.

Best-fit

Aggregating data zones to a higher-level geography does not always give an exact match. In these cases, data zones are allocated on a 'best-fit' basis to give the best possible match. The [Geography Best Fit Matrix](#) available from the SG website shows how well the boundaries for different geographies (including data zones) match, while the paper '[Evaluation of Non Standard Geography Population Estimates](#)' on the NRS website assesses the accuracy of population estimates built up from data zones.

Population-weighted centroid

This identifies the centre of a data zone by taking into account the size and location of the population, as well as the physical characteristics of the data zone. Further information is available in the '[Data Zone Centroids Methodology](#)' paper on the SG website.

Data zone lookup tables

The data zone lookup tables used to derive the population estimates for the areas in [Section 4](#) can be found in the [Scottish Neighbourhood Statistics Reference Material](#) section of the Scottish Government website. The text file 'Data Zone Lookup' gives geographic information for each data zone, while the Excel workbook 'Code to Name Lookup' gives the full names of the codes held in the 'Data Zone Lookup' file.

Urban Rural Classification

The 6-fold Urban Rural classification categories are:

1. Large urban areas	Settlements of over 125,000 people.
2. Other urban areas	Settlements of 10,000 to 125,000 people.
3. Accessible small towns	Settlements of between 3,000 and 10,000 people and within 30 minutes drive of a settlement of 10,000 or more.
4. Remote small towns	Settlements of between 3,000 and 10,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more.
5. Accessible rural areas	Settlements of less than 3,000 people and within 30 minutes drive of a settlement of 10,000 or more.
6. Remote rural areas	Settlements of less than 3,000 people and with a drive time of over 30 minutes to a settlement of 10,000 or more.

The 8-fold Urban Rural classification categories are:

1. Large urban areas	Settlements of over 125,000 people.
2. Other urban areas	Settlements of 10,000 to 125,000 people.
3. Accessible small towns	Settlements of between 3,000 and 10,000 people and within 30 minutes drive of a settlement of 10,000 or more.
4. Remote small towns*	Settlements of between 3,000 and 10,000 people and with a drive time of between 30 and 60 minutes to a settlement of 10,000 or more.
5. Very remote small towns	Settlements of between 3,000 and 10,000 people and with a drive time of over 60 minutes to a settlement of 10,000 or more.
6. Accessible rural areas	Settlements of less than 3,000 people and within 30 minutes drive of a settlement of 10,000 or more.
7. Remote rural areas*	Settlements of less than 3,000 people and with a drive time of between 30 and 60 minutes to a settlement of 10,000 or more.
8. Very remote rural areas	Settlements of less than 3,000 people and with a drive time of over 60 minutes to a settlement of 10,000 or more.

*The Remote Small Towns and Remote Rural categories in the 8-fold classification should not be confused with the similarly labelled categories in the 6-fold classification.

6. Notes on Statistical Publications

National Statistics

The United Kingdom Statistics Authority (UKSA) has designated these statistics as National Statistics, in line with the Statistics and Registration Service Act 2007 and keeping to the Code of Practice for Official Statistics (available on the [UKSA](#) website).

This can be broadly interpreted to mean that the statistics:

- meet identified needs of users;
- are well explained and readily accessible;
- are produced according to reliable methods, and
- are managed in a fair, independent and unbiased way in the public interest.

Once statistics have been designated as National Statistics, the Code of Practice for Official Statistics must continue to be followed.

National Records of Scotland

From 1 April 2011, the General Register Office for Scotland (GROS) merged with the National Archives of Scotland to become the National Records of Scotland (NRS). The [GROS website](#) will remain active until it is replaced by a new website for NRS.

We, the National Records of Scotland, are a non-ministerial department of the Scottish Government. Our aim is to provide relevant and reliable information, analysis and advice that meets the needs of government, business and the people of Scotland. We do this by:

- Preserving the past – We look after Scotland's national archives so that they are available for current and future generations, and we make available important information for family history.
- Recording the present – At our network of local offices, we register births, marriages, civil partnerships, deaths, divorces and adoptions in Scotland.
- Informing the future – We are responsible for the Census of Population in Scotland which we use, with other sources of information, to produce statistics on the population and households.

You can get other detailed statistics that we have produced from the [Statistics](#) section on our website. Statistics from the 2001 Census are on [Scotland's Census Results On-Line \(SCROL\)](#) website and on the [Census](#) section of the NRS/GROS website.

We provide information about [future publications](#) on our website. If you would like us to tell you about future statistical publications, you can register your interest on the Scottish Government [ScotStat](#) website.

Enquiries and suggestions

Please visit our [enquiries](#) page if you need any further information.
Email: customer@gro-scotland.gsi.gov.uk

If you have comments or suggestions that would help us improve our standards of service, please contact:

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Related organisations

Organisation	Contact
<p>The Scottish Government (SG) forms the bulk of the devolved Scottish Administration. The aim of the statistical service in the SG is to provide relevant and reliable statistical information, analysis and advice that meets the needs of government, business and the people of Scotland.</p>	<p>Office of the Chief Statistician Scottish Government 1.N04, St Andrew's House Edinburgh, EH1 3DG</p> <p>Phone: 0131 244 0442</p> <p>Email: statistics.enquiries@scotland.gsi.gov.uk</p> <p>Website: www.scotland.gov.uk/Topics/Statistics</p>
<p>The Office for National Statistics (ONS) is responsible for producing a wide range of economic and social statistics. It also carries out the Census of Population for England and Wales.</p>	<p>Customer Contact Centre Room 1.015 Office for National Statistics Cardiff Road Newport, NP10 8XG</p> <p>Phone: 0845 601 3034</p> <p>Minicom: 01633 812399</p> <p>Email: info@statistics.gsi.gov.uk</p> <p>Website: www.ons.gov.uk</p>
<p>The Northern Ireland Statistics and Research Agency (NISRA) is Northern Ireland's official statistics organisation. The agency is also responsible, for registering births, marriages, adoptions and deaths in Northern Ireland, and the Census of Population.</p>	<p>Northern Ireland Statistics and Research Agency McAuley House 2-14 Castle Street Belfast, BT1 1SA</p> <p>Phone: 028 9034 8100</p> <p>Email: info.nisra@dfpni.gov.uk</p> <p>Website: www.nisra.gov.uk</p>

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